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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,717	07/06/2000	Kimihiro Kikuchi	9281-3703	5991

757 7590 05/29/2003

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CHICAGO, IL 60611

EXAMINER

HECKENBERG JR, DONALD H

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 05/29/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/611,717

Applicant(s)

KIKUCHI ET AL.

Examiner

Donald Heckenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. This application contains claim 6 drawn to an invention nonelected with without traverse in Paper No. 5. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Pub. No. 06-67032 A (hereinafter :JP '032"; previously of record; reference below will be made to the figures of this document, as well as to the English machine translation cited in the previous Office Action) in view of Japanese Pub. No. 09-33731 (hereinafter "JP '731"; reference below will be made to the figures of this document, as well as to the English machine translation attached to the document).

JP '032 discloses a method for plastic optical end face treatment. The method comprises pressing an end face (Fa) of a

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plastic optical fiber (F) end on a transfer face (33a) of a heated mold (33) so as to soften and fuse the core. JP '032 further discloses intermittently repeating pressing/separating the core end face and the transfer face of the mold which deforms the shape of the core end face gradually and transfer the face of the mold to the core end face (translation, p. 4, ¶ 23), and thereby form a lens face shape (translation p. 4, ¶ 26).

JP '032 does not disclose the method to comprise removing a cover of the plastic optical fiber end to expose the core end face. JP '032 also does not disclose chamfering a peripheral portion of clad of the core end face of the plastic optical fiber.

JP '731 discloses a process of optical fiber end face treatment. The process includes the step of removing a cover (1c) of the plastic optical fiber to expose a core end face (see figure 4C). JP '731 further discloses chamfering a peripheral portion of clad of the core end face by applying a grinding stone (8) to clad of the core end face (see figure 4A). JP '731 notes that the process allows for the formation of a bevel on the end of the fiber without damaging the fiber (see translation p. 1, ¶ 4).

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It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the process of JP '032 as such to include the steps of removing a cover from the core end face, and to chamfer a peripheral portion of the clad of the core end face by applying a grind stone to the clad because this would allow for the formation of a bevel on the optical without damaging the fiber as suggested by JP '731.

6. Applicant's arguments filed on March 19, 2003 have been fully considered, but are moot in view of the new grounds of rejection presented above.

7. Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest a plastic optical fiber end face treatment method comprising pressing a core end face of a plastic optical fiber end intermittently on a

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mold heated to a certain temperature to soften and fuse the core end face and thereby transfer a transfer face of the mold on the core end face, removing a cover of the plastic optical fiber end to expose the core end face, and chamfering a peripheral portion of clad of the core end face of the plastic optical fiber end to remove a peripheral portion of clad of the core end face, wherein the chamfering comprises cutting or utilizes a cutter to remove the peripheral portion of clad of the core end face.

The closest prior art taught by the JP '032 and JP '731 is described above. Specifically, JP '032 and JP '731 teach the use of a grinding stone to remove the peripheral portion of clad of the core end face. However, neither JP '032 or JP '731, nor any of the other references of record teaches or suggests cutting the peripheral portion of clad of the core end face. "Cutting" has been interpreted, based on the disclosure of the instant application, as its ordinary meaning of utilizing a object with a fine edge to severe the surface to be cut.

9. The following references are cited, but not relied upon, as being pertinent to the instant application:

Japanese Pub. No. 11-223732 discloses a process utilizing a grinding stone to chamfer a plastic optical fiber.

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WO 95/07795 discloses a method of forming a bevel on a optical fiber.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

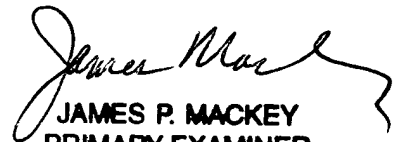
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald

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Heckenberg whose telephone number is (703) 308-6371. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at (703) 308-0457. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for responses to non-final action, and 703-872-9311 for responses to final actions. The unofficial fax phone number is (703) 305-3602.


Donald Heckenberg
May 22, 2003


JAMES P. MACKEY
PRIMARY EXAMINER
5/23/03